<u>CLAIM AMENDMENTS</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims:</u>

Claim 1 (Currently amended). A method of data transmission, comprising:

determining and storing at least one transmission method, with at least one transmission speed that represents a maximum data throughput rate, in a table of at least one transmission unit, for different parameters of lines;

with at least one transmission unit, measuring and analyzing interference of a line;

with at least one transmission unit, selecting at least one transmission method based on the analysis;

with at least one transmission unit, measuring line parameters of a line using the at least one transmission method;

with at least one transmission unit, comparing the measured line parameters with the line parameters stored in the table; and

with at least one transmission unit, determining and selecting the

transmission method having a transmission speed as a function of the

comparison;

wherein before the start of a data transmission, a measurement procedure is

initiated, the procedure comprising:

determining which end of the line is a central end and which end of the

line is a decentral end,

measuring interference of the line before the line parameters are

measured at the central end,

selecting and reporting a transmission method to the decentral end,

sending a predetermined test signal by the central end, at two different

frequencies, based on the line parameters stored in memory for the

selected transmission method, and the line parameters of the test signal

are measured by the decentral end, and a test signal is transmitted to

the central end by the decentral end,

checking an attenuation of the test signal at the central end, and, as

function of the measured attenuation, additional test signals at two

different frequencies are transmitted to the decentral end, and

repeating the sending and checking until the line parameters stored in

memory have been worked off.

Claim 2 (previously presented). The method according to claim l, wherein the

line parameters are represented by the attenuation and running time of the line

and by interference signals on the line.

Claim 3 (Previously presented). The method according to claim 2, wherein the

running time is determined by a measurement of the phase difference between

two signals with different frequencies, one of the two signals formed according

to the transmission method.

Claim 4 (Previously presented). The method according to claim 1, wherein the

maximum data throughput rate for different line parameters is determined with

different transmission methods and transmission speeds, by selecting the

transmission methods in the frequency range of which the line parameters of

attenuation and running time demonstrate the least amount of variations, and

in which the interference of the measured interference signal has the least

effect, and the line parameters that represent the maximum throughput rate

are stored in memory.

Claim 5 (Canceled).

Claim 6 (Currently amended). The method according to ~~claim 5~~ claim 1,

wherein the line parameters stored in memory are stored in tables, such that the tables are assigned to the different transmission methods with different speeds, and the selection of a transmission method for determining the line parameters and for determining the transmission method with the maximum throughput rate occurs by a comparison of the determined line parameters stored in the tables.

Claim 7 (Previously presented). The method according to claim 6, wherein transmission units are each connected at ends of the line, where a communications terminal is connected to one transmission unit, and a communications system is connected to the other transmission unit.

Claim 8 (previously presented). The method according to claim 7, wherein the transmission methods are represented by synchronous or asynchronous base band transmission methods, or by a single-carrier or multi -carrier frequency transmission method.

Claim 9 (Previously presented). The method according to claim 8, wherein the alternate mark inversion method, high density bipolar order 3 encoding method, coded diphase method, or 2 binary 1 quaternary method is provided as the base band transmission method, and the QAM method with different step numbers and the phase difference method is provided as the carrier frequency transmission method.

Claim 10 (previously presented). The method according to claim 1, further including the step of determining in a test set up and storing in the table, a wide variety of transmission procedures and line properties at different frequencies and frequency ranges.